

Amendments To The Claims

Please cancel Claims 1-40 without prejudice. The following list of the claims replaces all prior versions and lists of the claims in this application.

41. (New) A semiconductor embedded memory IC with improved operating performance, comprising:

a substrate;

a first set of logic devices having a high-k gate dielectric;

a second set of logic devices having a non-high-k gate dielectric; and

a set of memory devices having a non-high-k gate dielectric.

42. (New) The semiconductor device of Claim 41, wherein an operating voltage for the second set of logic devices is different from an operating voltage for the first set of logic devices.

43. (New) The semiconductor device of Claim 41, wherein an operating voltage for the set of memory devices is different from an operating voltage for the first set of logic devices.

44. (New) The semiconductor device of Claim 41, including a gate electrode over the non-high-k gate dielectric of the memory devices.

45. (New) A semiconductor embedded memory IC with improved operating performance, comprising:

a substrate;

a first set of logic devices having a high-k gate dielectric;

a second set of logic devices having a non-high-k gate dielectric; and

a set of memory devices having a high-k gate dielectric.

46. (New) The semiconductor device of Claim 45, wherein an operating voltage for the second set of logic devices is different from an operating voltage for the first set of logic devices.

47. (New) The semiconductor device of Claim 45, wherein an operating voltage for the set of memory devices is different from an operating voltage for the second set of logic devices.

48. (New) A semiconductor embedded memory IC with improved operating performance, comprising:

a substrate;

a first set of logic devices having a first non-high-k gate dielectric;

a second set of logic devices having a second non-high-k gate dielectric different from said first non-high-k gate dielectric; and

a set of memory devices having a high-k gate dielectric.

49. (New) The semiconductor device of Claim 48, wherein an operating voltage for the set of memory devices is different from an operating voltage for the first set of logic devices.

50. (New) The semiconductor device of Claim 48, wherein an operating voltage for the set of memory devices is different from an operating voltage for the second set of logic devices.